

Claims

1. (Previously Presented) A machine-implemented method, comprising:

creating, by an operating system, a plurality of non-global operating system partitions within a global operating system environment provided by the operating system, wherein each non-global operating system partition serves to isolate processes running within that non-global operating system partition from other non-global operating system partitions within the global operating system environment, wherein enforcement of boundaries between the non-global operating system partitions is carried out by the operating system, and wherein the plurality of non-global operating system partitions comprises a particular non-global operating system partition;

maintaining a file system for the particular non-global operating system partition, the file system comprising one or more mounts;

receiving a request from a process running within the particular non-global operating system partition to view information for mounts;

determining that the process is running within the particular non-global operating system partition; and

providing to the process information for only those mounts that are within the file system for the particular non-global operating system partition.

2. (Previously Presented) The method of claim 1, wherein the file system for the particular non-global operating system is part of an overall file system maintained for the global operating system environment, and wherein the overall file system comprises one or more other mounts that are not within the file system for the particular non-global operating system partition.

3. (Previously Presented) The method of claim 1, wherein maintaining comprises:
associating the one or more mounts with the particular non-global operating system
partition.

4. (Previously Presented) The method of claim 3, wherein the particular non-global
operating system partition has a mount data tracking structure associated therewith, and wherein
associating comprises:

adding entries corresponding to the one or more mounts to the mount data tracking
structure associated with the particular non-global operating system partition.

5. (Previously Presented) The method of claim 4, wherein the mount data tracking
structure associated with the particular non-global operating system partition comprises a linked
list of mount entries.

6. (Previously Presented) The method of claim 4, wherein providing comprises:
accessing the mount data tracking structure associated with the particular non-global
operating system partition; and

determining, based upon the mount data tracking structure associated with the particular
non-global operating system partition, the one or more mounts within the file system for the
particular non-global operating system partition.

7. (Previously Presented) The method of claim 1, wherein the file system for the particular non-global operating system partition has a root directory, and wherein providing comprises:

determining which mounts are within the file system for the particular non-global operating system partition by determining which mounts are under the root directory, or a subdirectory thereof.

8. (Previously Presented) The method of claim 1, wherein:

the operating system isolates the process within the particular non-global operating system partition by not allowing the process to access processes running in any other non-global operating system partition.

9. (Previously Presented) The method of claim 1, wherein creating comprises assigning a unique identifier to the particular non-global operating system partition.

10. (Previously Presented) The method of claim 9, wherein determining comprises: extracting, from a data structure associated with the process, a partition identifier; and using the partition identifier to determine the particular non-global operating system partition.

11. (Previously Presented) The method of claim 1, wherein the file system for the particular non-global operating system partition has a root directory, and wherein providing comprises:

indicating to the process that the root directory is one of the one or more mounts.

12. (Previously Presented) The method of claim 1, wherein the file system for the particular non-global operating system partition has a root directory, wherein the root directory has an associated path, wherein each of the one or more mounts is under the root directory, or a subdirectory thereof, and wherein providing comprises:

showing, to the process, each of the one or more mounts without including the path to the root directory.

13. (Previously Presented) An apparatus, comprising:

one or more processors; and

a storage having stored therein instructions which, when executed by the one or more processors, cause the one or more processors to perform the operations of:

implementing an operating system that creates a plurality of non-global operating system partitions within a global operating system environment provided by the operating system, wherein each non-global operating system partition serves to isolate processes running within that non-global operating system partition from other non-global operating system partitions within the global operating system environment, wherein enforcement of boundaries between the non-global operating system partitions is carried out by the operating system, and wherein the plurality of non-global operating system partitions comprises a particular non-global operating system partition;

maintaining a file system for the particular non-global operating system partition, the file system comprising one or more mounts;

receiving a request from a process running within the particular non-global operating system partition to view information for mounts;

determining that the process is running within the particular non-global operating system partition; and

providing to the process information for only those mounts that are within the file system for the particular non-global operating system partition.

14. (Previously Presented) The apparatus of claim 13, wherein the file system for the particular non-global operating system partition is part of an overall file system maintained for the global operating system environment, and wherein the overall file system comprises one or more other mounts that are not within the file system for the particular non-global operating system partition.

15. (Previously Presented) The apparatus of claim 13, wherein maintaining comprises:

associating the one or more mounts with the particular non-global operating system partition.

16. (Previously Presented) The apparatus of claim 15, wherein the particular non-global operating system partition has a mount data tracking structure associated therewith, and wherein associating comprises:

adding entries corresponding to the one or more mounts to the mount data tracking structure associated with the particular non-global operating system partition.

17. (Previously Presented) The apparatus of claim 16, wherein the mount data tracking structure associated with the particular non-global operating system partition comprises a linked list of mount entries.

18. (Previously Presented) The apparatus of claim 16, wherein providing comprises:
accessing the mount data tracking structure associated with the particular non-global operating system partition; and

determining, based upon the mount data tracking structure associated with the particular non-global operating system partition, the one or more mounts within the file system for the particular non-global operating system partition.

19. (Previously Presented) The apparatus of claim 13, wherein the file system for the particular non-global operating system partition has a root directory, and wherein providing comprises:

determining which mounts are within the file system for the particular non-global operating system partition by determining which mounts are under the root directory, or a subdirectory thereof.

20. (Previously Presented) The apparatus of claim 13, wherein the operating system isolates the process within the particular non-global operating system partition by not allowing the process to access processes running in any other non-global operating system partition.

21. (Previously Presented) The apparatus of claim 13, wherein implementing the operating system comprises assigning a unique identifier to the particular non-global operating system partition.

22. (Previously Presented) The apparatus of claim 21, wherein determining comprises:

extracting, from a data structure associated with the process, a partition identifier; and
using the partition identifier to determine the particular non-global operating system partition.

23. (Previously Presented) The apparatus of claim 13, wherein the file system for the particular non-global operating system has a root directory, and wherein providing comprises:

indicating to the process that the root directory is one of the one or more mounts.

24. (Previously Presented) The apparatus of claim 13, wherein the file system for the particular non-global operating system partition has a root directory, wherein the root directory has an associated path, wherein each of the one or more mounts is under the root directory, or a subdirectory thereof, and wherein providing comprises:

showing, to the process, each of the one or more mounts without including the path to the root directory.

25. (Previously Presented) A machine-readable storage medium, comprising:

instructions for causing one or more processors to implement an operating system that creates a plurality of non-global operating system partitions within a global operating system environment provided by the operating system, wherein each non-global operating system partition serves to isolate processes running within that non-global operating system partition from other non-global operating system partitions within the global operating system environment, wherein enforcement of boundaries between the non-global operating system partitions is carried out by the operating system, and wherein the plurality of non-global operating system partitions comprises a particular non-global operating system partition;

instructions for causing one or more processors to maintain a file system for the particular non-global operating system partition, the file system comprising one or more mounts;

instructions for causing one or more processors to receive a request from a process running within the particular non-global operating system partition to view information for mounts;

instructions for causing one or more processors to determine that the process is running within the particular non-global operating system partition; and

instructions for causing one or more processors to provide to the process information for only those mounts that are within the file system for the particular non-global operating system partition.

26. (Previously Presented) The machine-readable storage medium of claim 25, wherein the file system for the particular non-global operating system is part of an overall file system maintained for the global operating system environment, and wherein the overall file

system comprises one or more other mounts that are not within the file system for the particular non-global operating system partition.

27. (Previously Presented) The machine-readable storage medium of claim 25, wherein the instructions for causing one or more processors to maintain comprises:
instructions for causing one or more processors to associate the one or more mounts with the particular non-global operating system partition.

28. (Previously Presented) The machine-readable storage medium of claim 27, wherein the particular non-global operating system partition has a mount data tracking structure associated therewith, and wherein the instructions for causing one or more processors to associate comprises:

instructions for causing one or more processors to add entries corresponding to the one or more mounts to the mount data tracking structure associated with the particular non-global operating system partition.

29. (Previously Presented) The machine-readable storage medium of claim 28, wherein the mount data tracking structure associated with the particular non-global operating system partition comprises a linked list of mount entries.

30. (Previously Presented) The machine-readable storage medium of claim 28, wherein the instructions for causing one or more processors to provide comprises:

instructions for causing one or more processors to access the mount data tracking structure associated with the particular non-global operating system partition; and

instructions for causing one or more processors to determine, based upon the mount data tracking structure associated with the particular non-global operating system partition, the one or more mounts within the file system for the particular non-global operating system partition.

31. (Previously Presented) The machine-readable storage medium of claim 25, wherein the file system for the particular non-global operating system partition has a root directory, and wherein the instructions for causing one or more processors to provide comprises:

instructions for causing one or more processors to determine which mounts are within the file system for the particular non-global operating system partition by determining which mounts are under the root directory, or a subdirectory thereof.

32. (Previously Presented) The machine-readable storage medium of claim 25, wherein the operating system isolates the process within the particular non-global operating system partition by not allowing the process to access processes running in any other non-global operating system partition.

33. (Previously Presented) The machine-readable storage medium of claim 25, wherein the instructions for causing one or more processors to implement the operating system comprises instructions for causing one or more processors to assign a unique identifier to the particular non-global operating system partition.

34. (Previously Presented) The machine-readable storage medium of claim 33, wherein the instructions for causing one or more processors to determine comprises:

- instructions for causing one or more processors to extract, from a data structure associated with the process, a partition identifier; and
- instructions for causing one or more processors to use the partition identifier to determine the particular non-global operating system partition.

35. (Previously Presented) The machine-readable storage medium of claim 25, wherein the file system for the particular non-global operating system partition has a root directory, and wherein the instructions for causing one or more processors to provide comprises:

- instructions for causing one or more processors to indicate to the process that the root directory is one of the one or more mounts.

36. (Previously Presented) The machine-readable storage medium of claim 25, wherein the file system for the particular non-global operating system partition has a root directory, wherein the root directory has an associated path, wherein each of the one or more mounts is under the root directory, or a subdirectory thereof, and wherein the instructions for causing one or more processors to provide comprises:

- instructions for causing one or more processors to show, to the process, each of the one or mounts without including the path to the root directory.